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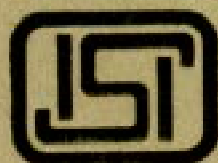


IS : 7787 - 1975

Indian Standard

GRADING FOR *NEEM* KERNELS AND
DEPULPED *NEEM* SEEDS FOR OIL MILLING

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GRADING FOR *NEEM* KERNELS AND DEPULPED *NEEM* SEEDS FOR OIL MILLING

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Indian Standard

GRADING FOR *NEEM* KERNELS AND DEPULPED *NEEM* SEEDS FOR OIL MILLING

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 25 September 1975, after the draft finalized by the Oils and Oilseeds Sectional Committee had been approved by the Chemical Division Council and the Agricultural and Food Products Division Council.

0.2 *NEEM* tree (*Azadirachta indica*), also known as margosa, VEPA, etc, grows all over India but is found concentrated in Uttar Pradesh, Rajasthan, Tamil Nadu and Andhra Pradesh. Utilization of *NEEM* seeds and kernels is beset with the problem of systematic collection, processing and crushing of seeds and kernels. But with the ever increasing exploitation of non-edible oils for industrial and pharmaceutical purposes, *NEEM* oil is gaining importance economically. The concerned sectional committee, therefore, decided to formulate this standard in order to meet the need felt for precise and acceptable requirements and methods of grading for *NEEM* kernels and depulped *NEEM* seeds for oil milling.

0.3 The oil obtained from *NEEM* kernels and depulped *NEEM* seeds is covered in IS : 4765-1975*.

0.4 This standard contains clause 4.1 which calls for agreement between the purchaser and the supplier.

0.5 In the preparation of this standard, substantial assistance has been derived from data supplied by the Khadi and Village Industries Commission, Bombay, which is thankfully acknowledged.

0.6 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960†. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes methods of grading and requirements for *NEEM* kernels and depulped *NEEM* seeds for oil milling, along with the methods of sampling and test.

*Specification for *NEEM* kernel oil and depulped *NEEM* seed oil (*first revision*).

†Rules for rounding off numerical values (*revised*).

2. TERMINOLOGY

2.1 For the purpose of this standard, the definitions given in IS : 3579-1966* shall apply.

3. REQUIREMENTS

3.1 Description — The material shall be obtained from seeds of fruit borne on the *NEEM* trees *Azadirachta indica*. The material shall be clean.

3.2 The material shall also comply with the requirements given in Table 1.

TABLE 1 REQUIREMENTS FOR NEEM KERNELS AND DEPULPED NEEM SEEDS FOR OIL MILLING

SL No.	CHARACTERISTIC	REQUIREMENT FOR		METHOD OF TEST, REF TO CL No. IN IS : 3579-1966*
		NEEM Kernels	Depulped Seeds	
(1)	(2)	(3)	(4)	(5)
i)	Damaged and weevilled, percent by mass, <i>Max</i>	3	3	4
ii)	Slightly damaged, percent by mass, <i>Max</i>	8	8	
iii)	Shrivelled and immature, percent by mass, <i>Max</i>	5	5	
iv)	Split and broken, percent by mass, <i>Max</i>	5	2	
v)	Impurities, percent by mass, <i>Max</i>	4	6	
vi)	Total of (i) to (v), <i>Max</i>	16	18	—
vii)	Moisture content, percent by mass, <i>Max</i>	8	8	5.1
viii)	Oil content, percent by mass, <i>Max</i>	45	22	5.2
ix)	Acid value of extracted oil, <i>Max</i>	10	12	5.3

*Methods of test for oilseeds.

4. PACKING

4.1 The material shall be supplied in clean, dry, sound, single, new or unmended B-Twill bags in merchantable condition, as agreed to between the purchaser and the supplier.

*Methods of test for oilseeds.

5. MARKING

5.1 The bags shall be marked with the following particulars:

- a) Name of the material,
- b) Net mass,
- c) Year of the crop, and
- d) The source of supply.

6. SAMPLING

6.1 Representative samples for the purpose of the tests shall be drawn as prescribed in IS : 4115-1967*.

7. TESTS

7.1 Tests shall be carried out according to the methods prescribed in IS : 3579-1966†.

7.2 **Quality of Reagents** — Unless specified otherwise, pure chemicals and distilled water (*see* IS : 1070-1960‡) shall be used in tests.

NOTE — ' Pure chemicals ' shall mean chemicals that do not contain impurities which affect the results of analysis.

*Methods for sampling of oilseeds.

†Methods of test for oilseeds.

‡Specification for water, distilled quality (*revised*).

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ON

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IS :

- 75-1973 Linseed oil, raw and refined (*second revision*)
- 435-1973 Castor oil (*second revision*)
- 542-1968 Coconut oil (*second revision*)
- 543-1968 Cottonseed oil (*second revision*)
- 544-1968 Groundnut oil (*second revision*)
- 545-1968 *MAHUA* oil (*second revision*)
- 546-1975 Mustard oil (*second revision*)
- 547-1968 Sesame oil (*second revision*)
- 548 (Part I)-1964 Methods of sampling and test for oils and fats : Part I Methods of sampling, physical and chemical tests (*revised*)
- 548 (Part II)-1974 Methods of sampling and test for oils and fats : Part II Purity test (*second revision*)
- 595-1956 Blown rape (or mustard) oil for use in lubricants
- 877-1971 Methods of sampling and test for activated carbon used for decolorizing vegetable oils and sugar solution
- 887-1968 Animal tallow (*first revision*)
- 1035-1972 Methods of sampling and test for bleaching earths (*second revision*)
- 1675-1971 Stearic acid, technical (*first revision*)
- 1676-1960 Oleic acid, technical
- 1780-1961 Vegetable tallow
- 1796-1960 Crude glycerine and refined glycerine
- 1965-1971 Bleaching earth of Indian origin used for decolorizing vegetable oils (*first revision*)
- 3448-1968 Rice bran oil (*first revision*)
- 3470-1966 Hexane, food grade
- 3490-1965 Nigerseed oil
- 3491-1965 Safflower oil
- 3492-1965 *KARANJA* oil
- 3579-1966 Methods of test for oilseeds
- 4054-1966 Neatsfoot oil
- 4055-1966 Maize (corn) oil
- 4056-1966 Fish oil for leather industry
- 4088-1966 *KUSUM* oil
- 4115-1967 Methods for sampling of oilseeds
- 4276-1967 Solvent-extracted soybean oil, refined
- 4277-1975 Sunflower oil (*first revision*)
- 4427-1967 Grading for groundnut kernels for oil milling and for table use
- 4428-1967 Grading for mustard seeds for oil milling
- 4429-1967 Grading for sesame seeds for oil milling

4617-1968 Grading for linseed for oil milling
4618-1968 Grading for castor seeds for oil milling
4619-1968 Grading for *MAHUA* kernels for oil milling
4620-1968 Grading for cotton seeds for oil milling
4765-1975 *NEEM* kernel and depulped *NEEM* seed oil (*first revision*)
5292-1969 Grading for safflower seeds for oil milling
5293-1969 Grading for niger seeds for oil milling
5294-1969 Grading for *KUSUM* seeds for oil milling
5614-1970 Tobaccoseed oil
5637-1970 Watermelon seed oil
5638-1970 Acid oil (cottonseed and groundnut)
5686-1970 Code of practice for handling and storage of oil seeds
6220-1971 Grading for copra for table use and for oil milling
7375-1974 Salseed fat
7787-1975 Grading for *NEEM* kernels and depulped *NEEM* seeds for oil milling
7797-1975 Grading for soybeans for oil milling
7798-1975 Grading for sunflower seeds for oil milling

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Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110001

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117/418 B Sarvodaya Nagar	KANPUR 208005	82 72
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